

ABSTRACT OF THE DISCLOSURE

A system for transplant production comprises: at least one air conditioner installed in a completely light shielding closed structure surrounded by a thermally insulated wall, for controlling temperature and humidity of air in the closed structure; at least one box-shaped culturing module disposed in an internal space of the closed structure, having a front face opening which is opened to the internal space of the closed structure; a plurality of transplant production shelves arranged vertically in a multi-layer in the culturing module to form a transplant production space between upper and lower transplant production shelves; a plurality of plug trays for holding a plant growing medium mounted on each transplant production shelf; a sub-irrigation unit capable of irrigation from a bottom of the plug trays mounted on each transplant production shelf; an artificial lighting unit provided on a back of each transplant production shelf for irradiating light to the lower plug trays; and at least one air fan fixed to a back wall of each transplant production shelf of the culturing module. By sucking air whose temperature and humidity have been controlled by the air conditioner using the air fan from the front face opening of the culturing module and sending the air to a rear of the back wall of each transplant production shelf, temperature-controlled and humidity-controlled air can be generated.